

February 4, 2003

RE: Knappe & Vogt 035-16110-00073

TO: Interested Parties / Applicant

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision - Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures

February 4, 2003

Chuck Overla
Knappe & Vogt
6625 N. Old State Road 3
Muncie, IN 47303-9501

Re: Exempt Construction and Operation Status
035-16110-00073

Dear Mr. Overla:

The application from Knappe & Vogt, received on September 13, 2002, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that your emission source, a wire basket manufacturing plant located at 6625 N. Old State Road 3, Muncie, IN 47303-9501, is classified as exempt from air pollution permit requirements. The emission source consists of the following emission units:

- (a) one (1) cleaning furnace, natural gas fired, rated at 0.95 million British thermal units per hour.
- (b) one (1) air makeup unit, natural gas fired, rated at 3.1 million British thermal units per hour.
- (c) one (1) air makeup unit, natural gas fired, rated at 1.25 million British thermal units per hour.
- (d) seventeen (17) space heaters, natural gas fired, with a total rating at 1.7 million British thermal units per hour.

The following conditions shall be applicable:

- 1. Pursuant to 326 IAC 4-2-2, the cleaning furnace shall:
 - (1) consist of primary and secondary chambers or the equivalent;
 - (2) be equipped with a primary burner;
 - (3) comply with 326 IAC 5-1 and 326 IAC 2;
 - (4) be maintained properly as specified by the manufacturer;
 - (5) be operated according to the manufacturer's recommendations;
 - (6) comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;
 - (7) be operated so that emissions of hazardous material or noxious odors are prevented;
 - (8) not emit particulate matter in excess of three-tenths (0.3) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard conditions corrected to fifty percent (50%) excess air; and
 - (9) not create a nuisance or a fire hazard.
- 2. Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Any change or modification which may increase the potential (pollutant) emissions to (10) tons per year or more from the equipment covered in this exemption letter must be approved by the Office of Air Quality (OAQ) before such change may occur.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

ARD

cc: File - Delaware County
Delaware County Health Department
Air Compliance Section Inspector - Marc Goldman
Compliance Data Section - Karen Nowak
Permit Tracking
Technical Support and Modeling - Michele Boner

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Background and Description

| | |
|-------------------------|--|
| Source Name: | Knape & Vogt |
| Source Location: | 6625 N. Old State Road 3, Muncie, IN 47303-9501 |
| County: | Delaware |
| SIC Code: | 3496 |
| Application No.: | 035-16110-00073 |
| Permit Reviewer: | Allen R. Davidson |

On September 13, 2002, the Office of Air Quality (OAQ) received an application from Knape & Vogt relating to the construction and operation of a wire basket manufacturing plant located at 6625 N. Old State Road 3, Muncie, IN 47303-9501. This emission source consists of the following emission units:

- (a) one (1) cleaning furnace, natural gas fired, rated at 0.95 million British thermal units per hour.
- (b) one (1) air makeup unit, natural gas fired, rated at 3.1 million British thermal units per hour.
- (c) one (1) air makeup unit, natural gas fired, rated at 1.25 million British thermal units per hour.
- (d) seventeen (17) space heaters, natural gas fired, with a total rating at 1.7 million British thermal units per hour.

History

This application is the first received for this emission source.

Enforcement Issues

There are no enforcement actions pending against this emission source.

Recommendation

The staff recommends to the Commissioner that the emission source be issued an exemption letter. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on September 13, 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations. (2 pages)

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

The following table reflects the existing source potential to emit. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit:

| Pollutant | Potential To Emit (tons/year) |
|-----------------|-------------------------------|
| PM | 2.6 |
| PM-10 | 2.6 |
| SO ₂ | 0.0 |
| VOC | 0.2 |
| CO | 2.6 |
| NO _x | 3.1 |

| HAP's | Potential To Emit (tons/year) |
|-------|-------------------------------|
| TOTAL | negligible |

The potential to emit (as defined in 326 IAC 2-7-1(29)) particulate matter (PM) is less than five tons per year. Therefore, the application does not require review under 326 IAC 2-5.1 and can be classified as exempt under 326 IAC 2-1.1-3.

This source is not a major source for Prevention of Significant Deterioration, 326 IAC 2-2. No attainment regulated pollutant has the potential to emit at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

County Attainment Status

The source is located in Delaware County.

| Pollutant | Status |
|-----------------|------------|
| PM-10 | attainment |
| SO ₂ | attainment |
| NO ₂ | attainment |
| Ozone | attainment |
| CO | attainment |
| Lead | attainment |

Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Delaware County has been designated as attainment or unclassifiable for ozone and for all other pollutants. Therefore, emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Federal Rule Applicability

There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source. Subpart Eb is not applicable since the cleaning furnace's charging capacity is less than 250 tons per day. Subpart Ec is not applicable since the cleaning furnace does not process hospital waste, medical waste or infectious waste.

There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)

This source is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control). The source does not have potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it does not have the potential to emit more than one hundred (100) tons per year of any pollutant specified in the rule.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Cleaning Furnace

326 IAC 4-2-2 (Incinerators)

This facility is subject to 326 IAC 4-2. Pursuant to 326 IAC 4-2-2 (Incinerators), for incinerators with a maximum burning capacity less than 200 pounds per hour, particulate matter emissions shall not exceed 0.3 pounds per 1000 pounds of dry exhaust gas at standard conditions, corrected to 50% excess air.

326 IAC 6-3-2 (Particulate Emissions Limitations)

Pursuant to 326 IAC 6-3-1(b)(2), incineration is expressly exempt from 326 IAC 6-3-2.

State Rule Applicability - Air Makeup Units and Space Heaters

There are no state rules applicable to these facilities.

Conclusion

The construction and operation of this emission source shall be subject to the conditions of the attached Exemption 035-16110-00073.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Knape & Vogt
Address City IN Zip: State Road 3, Muncie, IN 47305
ID: 035-16110-00073
Reviewer: Allen R. Davidson
Date: 01/06/03

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

7.000

61.3

| | Pollutant | | | | | |
|-------------------------------|-----------|-------|-----|----------------------|-----|------|
| | PM* | PM10* | SO2 | NOx | VOC | CO |
| Emission Factor in lb/MMCF | 1.9 | 7.6 | 0.6 | 100.0 **see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.1 | 0.2 | 0.0 | 3.1 | 0.2 | 2.6 |

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

HAPs - Organics

| | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Toluene |
|-------------------------------|-----------|-----------------|--------------|-----------|-----------|
| Emission Factor in lb/MMcf | 2.1E-03 | 1.2E-03 | 7.5E-02 | 1.8E+00 | 3.4E-03 |
| Potential Emission in tons/yr | 6.439E-05 | 3.679E-05 | 2.300E-03 | 5.519E-02 | 1.042E-04 |

HAPs - Metals

| | Lead | Cadmium | Chromium | Manganese | Nickel |
|-------------------------------|-----------|-----------|-----------|-----------|-----------|
| Emission Factor in lb/MMcf | 5.0E-04 | 1.1E-03 | 1.4E-03 | 3.8E-04 | 2.1E-03 |
| Potential Emission in tons/yr | 1.533E-05 | 3.373E-05 | 4.292E-05 | 1.165E-05 | 6.439E-05 |

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98).

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factor: confirm that the correct factor is used (i.e., condensable included/not included).

Company Name: Knape & Vogt
Address City IN Zip: State Road 3, Muncie, IN 47305
ID: 035-16110-00073
Reviewer: Allen R. Davidson
Date: 01/06/03

The following is a calculation of air density under normal operating conditions:

$$D = D_0 * (T_0/T) * (P/P_0) = 0.019274 \text{ lb/ft}^3$$

$$\begin{array}{llll} \text{Where } D_0 = & 0.07275 \text{ lb/ft}^3 & T_0 = & 545.69 \text{ deg. R} & P = & 14.7 \text{ lb/in}^2 \\ & & T = & 2059.69 \text{ deg. R} & P_0 = & 14.7 \text{ lb/in}^2 \end{array}$$

The following calculations determine the emission limit under 326 IAC 4-1-2:

$$\begin{array}{rcll} \frac{0.3 \text{ lb PM} *}{1000 \text{ lb air}} & \frac{0.01927 \text{ lb air} *}{\text{ft}^3 \text{ air}} & \frac{1600 \text{ ft}^3 \text{ air} *}{\text{min}} & \frac{60 \text{ min}}{\text{hr}} = 0.5551 \text{ lb/hr} \\ & \frac{0.55511 \text{ lb} *}{\text{hr}} & \frac{8760 \text{ hr} *}{\text{yr}} & \frac{\text{ton}}{2000 \text{ lb}} = 2.4314 \text{ ton/yr} \end{array}$$

The following calculations determine the emission limit under 326 IAC 6-3-2:

$$\begin{array}{l} E = 4.1 * (0.070 ^{0.67}) = 0.69 \text{ lb/hr} \\ 0.69 \text{ lb/hr} * 8760 \text{ hr/yr} / 2000 \text{ lb/ton} = 3.02 \text{ ton/yr} \end{array}$$